

REMARKS

This response is submitted in reply to the Office Action dated September 15, 2004. Claim 1-24 are pending in the patent application. Claims 13 and 22 have been amended. Claims 5, 7, 14, 16 and 18-21 have been canceled without prejudice or disclaimer. The specification has been amended. No new matter has been added by any of the amendments made herein. An Information Disclosure Statement is submitted herewith. Additionally, missing page 7 of the patent application is submitted herewith.

In the Office Action, the drawings were objected to as failing to comply with 37 C.F.R. §1.84(p)(5) because reference numeral 4 in Figures 9 and 11 is not mentioned in the specification of the patent application. Accordingly, Applicant has amended the specification to include reference numeral 4 to overcome this objection.

The Abstract is objected to as to informalities. Specifically, the Office Action states that the phrase "the present invention discloses a" in the Abstract should be deleted and replaced with the letter "A." Accordingly, Applicant has amended the specification to include these revisions and to comply with the proper format for the Abstract.

The Office Action also states that page 7 of the specification was omitted from the original filing of the application. Applicant has submitted missing page 7 of the patent application with this response. No new matter has been added to page 7 or to the specification of the patent application.

Claims 13-18 and 22 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,978,674 to Herbst ("Herbst"). Applicant respectfully disagrees with and traverses this rejection because Herbst does not disclose all of the elements of claims 13-18 and 22.

Herbst is directed to a device for the discharge of compression material and the production of a compression member of a pull and pressure anchor. The anchoring device in Herbst is adapted to hold one end of a potentially stressed linear member within the bore hole of an earth formation. (See the Abstract). The tension member 2 includes a longitudinally extending compression duct 6 which communicates with a compression channel 8 within elastic sleeve 9. (See Figs. 1 and 4). In Herbst, after the cement surrounding the anchoring device is set, a liquid cement slurry is pumped through duct 6 to fill the open channel 8. The slurry expands the sleeve 9 outwardly against the set cement to increase the hold between the set

cement and the anchoring device. The pressurized slurry is then set solid to maintain the sleeve 9 in its expanded state. Therefore, the anchoring device in Herbst anchors the linear member in the bore hole (i.e., fixes the linear member in place) and does not move and does not enable the linear member to move between the body 4 formed by the shelves 4' and 4" in the tension member 2. (See the Abstract, lines 1-5; Col. 3, line 24 to Col. 4, line 2). If the anchoring device in Herbst were able to move or yield, the cement which holds the anchoring device would rupture or break when sufficient force is applied to the anchoring device. Accordingly, the linear member in channel 8 does not yield and is not meant to yield. If such yielding did occur, the anchoring device would not properly anchor or fix the linear member in place within the bore hole.

Accordingly, Herbst does not disclose, teach or suggest the elements of claim 13 or claim 22. Therefore, claims 13 and claims 14-18, which depend from claim 13, and claim 22 and claims 23 and 24, which depend from claim 22, are each patentably distinguished over Herbst and are in condition for allowance.

Claims 1-3, 10-12, 19-21, 23 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,586,389 to Gillespie ("Gillespie") in view of U.S. Patent No. 4,305,687 to Parker ("Parker"). Applicants respectfully disagree with and traverse this rejection because the combination of Gillespie and Parker does not disclose, teach or suggest the elements of these claims.

Gillespie is directed to a yieldable cable bolt constructed of one or more multi-strand steel cables that form the bolt shaft. (See the Abstract). The yield is effected by the cable enlarged section 24 being pulled through the bolt head sleeve 18 which causes the sleeve and cable enlarged section to deform. (See the Abstract; Col. 3, lines 35-46). Contrary to the claimed invention, the cable bolt of Gillespie performs yielding at the trailing end of the bolt (i.e., the end including the nut 22) and not along the length of the cable as in the claimed invention.

Moreover, the cable bolt of Gillespie includes anchor sleeves 62, which are attached to the bolt shaft at various points along the cable to enhance the resin adhesive to retain the cable bolt within the bore hole (Col. 8, lines 29-41). The anchor sleeves 62, however, do not slip along the cable under tension (Col. 9, lines 1-4). Accordingly, the yielding characteristics of the cable bolt of Gillespie occurs at the trailing end of the cable bolt (i.e., adjacent to the nut 22) and

not along the length of the cable (i.e., relative to the grout slippage means or tube 8) as in the claimed invention.

Gillespie also describes an embodiment of the bolt which includes a yieldable grout compactor 66 mounted on a bolt shaft 2. The compactor 66 operates to travel along the shaft as the grout is installed into the shaft by allowing only air to pass the compactor 66 as it compacts the grout during the grout installation process. (Col. 9, lines 23-37). Compactor 66 itself does not contribute to the mechanical strength of the arrangement and does not yield or slip under a stress or load. Therefore, the compactor 66 does not teach or suggest the grout slippage means such as the plastic tube 8 of the claimed invention.

Conversely, Parker provides the yielding device which forces a grout anchor (i.e., the wedges 74, 75, 76 in Fig. 7) through a hardened grout 78 which is split between longitudinal flanges (i.e., flanges 79, 80, 81). The grout 78 is forced against the sides of the hole (see column 7, lines 31 to 63). Parker therefore teaches or describes a moveable grout anchor.

However, Gillespie teaches an anchoring device which does not yield or move but which anchors or fixes a linear member in place. As stated above, Parker teaches a moveable grout anchor. Thus, Parker teaches away from the fixed or immovable anchoring device described in Gillespie. Therefore, a person of ordinary skill in the art would not be motivated to combine Gillespie and Parker where Parker teaches away from the device disclosed by Gillespie.

Moreover, Parker does not disclose, teach or suggest the elements of claims 1, 19 and 22. In Parker, the anchor and tension member are fixed relative to each other where the anchor is able to move through the grout in yielding. (see the Abstract; Fig. 7) On the contrary, in the claimed invention, the tendon yields to relieve stress on the bolt. Therefore, Parker does not disclose, teach or suggest the elements of the claimed invention as defined by claims 1, 19 and 22.

Accordingly, the combination of Gillespie and Parker does not disclose, teach or suggest the elements of claims 1, 19 and 22 because a person of ordinary skill in the art would not be motivated to combine these references whether there is no teaching or suggestion in either reference to make such a combination. Therefore, claims 1-3, 10-12, 19-21, 23 and 24 are patentably distinguished over the combination of Gillespie and Parker and are in condition for allowance.

Claims 4-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Gillespie in view of Parker and in further view of Herbst. Claims 4-9 depend from claim 1. Therefore, Applicant respectfully submits that claims 4-9 are allowable for at least the reasons set forth above with respect to claim 1 because the combination of Gillespie, Parker and Herbst does not disclose, teach or suggest the novel elements of claims 4-9 in combination with the novel elements of claim 1. For these reasons, claims 4-9 are patentably distinguished over the combination of Gillespie, Parker and Herbst and are in condition for allowance.

Claims 1-24 are provisionally rejected under 35 U.S.C. §101 (statutory type double patenting) as claiming the same invention as that of claims 1-24 in co-pending U.S. Patent Application No. 10/601,024. Applicants respectfully submit that the claims in co-pending U.S. Patent Application No. 10/601,024 have been amended in response to an Office Action issued in that case and are therefore different than the claims in the present application. Moreover, Applicant has canceled claims 5, 7, 14, 16 and 18-21 to remove other common claims between the patent applications. Accordingly, Applicant respectfully submits that the double patenting rejection has been overcome.

In light of the above, Applicant respectfully submits that claims in the above-identified patent application are patentable over the art of record because the cited art does not disclose, teach or suggest all of the elements of these claims. Accordingly, Applicant respectfully requests that claims 1-4, 6, 8-13, 15, 17, 19-24 be deemed allowable at this time and that a timely notice of allowance be issued in this case.

A check in the amount of \$180.00 is enclosed herewith to cover the fees for the information disclosure statement. If any other fees are due in connection with this application as a whole, the Patent Office is authorized to deduct such fees from Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the attorney docket number (114663-008) on the account statement.

Respectfully submitted,

BELL, BOYD & LLOYD LLC


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